AMENDMENTS TO THE CLAIMS

Please add claims 21-46 as follows:

1. (Original) In a system wherein a first endpoint is providing data to a plurality of second endpoints each connected by a point-to-point communication channel with said first endpoint, an automatic method for optimizing the transmission of said data to said plurality of second endpoints comprising the following steps:

    a. said first endpoint activating a multicast communication channel having a first multicast address and commencing broadcast of said data over said multicast communication channel;

    b. said first endpoint transmitting a request message to each of said plurality of second endpoints in order to query each of said second endpoints whether they can receive transmissions broadcast to said first multicast address;

    c. certain of said plurality of second endpoints transmitting an acknowledgment message and said first endpoint receiving said acknowledgment message;

    d. for each said acknowledgment message received from said certain of said plurality of second endpoints which indicates that said certain of said plurality of second endpoints can receive transmissions broadcast to said first multicast address, deactivating said point-to-point communication channel with said first endpoint and said certain of said plurality of second endpoints; and

    e. terminating said broadcast of said data and said multicast communication channel if at least two of said plurality of second endpoints do not transmit said acknowledgment messages containing a positive acknowledgment.

2. (Original) The method of claim 1 further comprising the step of receiving detach messages from certain of said plurality of second endpoints, and if at least two of said plurality of second endpoints are not receiving said data, then terminating said broadcast of said data and said multicast communication channel.

3. (Original) The method of claim 1 wherein said each acknowledgment message includes a response code.

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4. (Original) The method of claim 3 wherein said response code indicates whether each said certain of said plurality of second endpoints can receive transmissions broadcast to said first multicast address.

5. (Original) The method of claim 1 wherein said data includes teleconference data.

6. (Original) The method of claim 1 further comprising, prior to said step of said first endpoint activating said multicast communication channel having a first multicast address, determining whether more than one of said plurality of second endpoints is coupled to said first endpoint on a single communication medium, and if not, aborting said method.

7. (Original) The method of claim 6 further comprising, prior to said first endpoint activating said multicast communication channel having said first multicast address, determining whether said single communication medium supports broadcasting to said first multicast address.

8. (Original) The method of claim 1 wherein said data includes teleconference data between said first endpoint and said plurality of second endpoints.

9. (Original) An apparatus in a first endpoint for transmitting data to a plurality of second endpoints receiving said data from said first endpoint on point-to-point communication channels comprising:
      a. a circuit for activating a multicast communication channel having a first multicast address and commencing broadcast of said data over said multicast communication channel;
      b. a circuit for transmitting a request message to each of said plurality of second endpoints in order to query each of said second endpoints whether they can receive transmissions broadcast to said first multicast address;
      c. a circuit for receiving acknowledgment messages, if any, from certain of said plurality of second endpoints;
      d. a circuit for deactivating each said point-to-point communication channel with said certain of said plurality of second endpoints responsive to receiving each said acknowledgment message; and

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e. a circuit for terminating said broadcast of said data and said multicast communication channel if at least two of said acknowledgment messages containing a positive acknowledgment are not received.

10. (Original) The apparatus of claim 9 further comprising a circuit for receiving detach messages from others of said plurality of second endpoints, and if at least two of said plurality of second endpoints are not receiving said data, then terminating said broadcast of said data and said multicast communication channel.

11. (Original) The apparatus of claim 9 wherein said each acknowledgment message includes a response code.

12. (Original) The apparatus of claim 11 wherein said response code indicates whether each of said certain of said plurality of second endpoints can receive transmissions broadcast to said first multicast address.

13. (Original) The apparatus of claim 9 wherein said data includes teleconference data.

14. (Original) The apparatus of claim 9 further comprising a detection circuit operative prior to said first endpoint activating said multicast communication channel having said first multicast address for determining whether more than one of said plurality of second endpoints is coupled to said first endpoint on a single communication medium, and if not, not activating said circuits b and c.

15. (Original) The apparatus of claim 14 further comprising, prior to activation of said detection circuit a circuit for determining whether said single communication medium supports broadcasting to said first multicast address.

16. (Previously presented) <u>In a system wherein a first endpoint is providing data to a plurality of second endpoints each connected by a point-to-point communication channel with said first endpoint, an automatic method for optimizing the transmission of said data to said plurality of second endpoints comprising the following steps:</u>

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a. said first endpoint activating a multicast communication channel having a first multicast address and commencing broadcast of said data over said multicast communication channel;

b. said first endpoint transmitting a request message to each of said plurality of second endpoints in order to query each of said second endpoints whether they can receive transmissions broadcast to said first multicast address;

c. certain of said plurality of second endpoints transmitting an acknowledgement message and said first endpoint receiving said acknowledgement message;

d. for each said acknowledgement message received from said certain of said plurality of second endpoints which indicates that said certain of said plurality of second endpoints can receive transmissions broadcast to said first multicast address, deactivating said point-to-point communication channel with said first endpoint and said certain of said plurality of second endpoints; and

e. terminating said broadcast of said data and said multicast communication channel if a predetermined condition regarding said acknowledgement messages from said plurality of second endpoints is satisfied.

17-20. (Canceled)

21. (New) In a system wherein a first entity and a plurality of second entities in a network are operating in a point-to-point mode, with each of said second entities connected by a point-to-point communication channel with said first entity, an automatic method for optimizing a mode of transmission of data between said plurality of second entities and said first entity, the method comprising the following steps:

a. said first entity multicasting a request message to said plurality of second entities over a communication channel, said request message being used to initiate transition from said point-to-point mode to a multicast mode;

b. said first entity receiving from certain of said plurality of second entities an acknowledgment message in response to said request message, said acknowledgement message indicating that each of said certain of said plurality of entities was able to receive said multicast request message; and

c. for each said acknowledgment message received from said certain of said plurality of second entities which indicates that said certain of said plurality of

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second entities can receive said multicast request message, deactivating said point-to-point communication channel between said first entity and said certain of said plurality of second entities.

22. (New) The method of claim 21, wherein said each acknowledgment message includes a response code.

23. (New) The method of claim 22, wherein said response code indicates whether each said certain of said plurality of second endpoints can perform an action requested in the multicast request message.

24. (New) The method of claim 21, wherein said data comprises audio data and video data.

25. (New) The method of claim 21, further comprising operating each of said certain of said plurality of second entities in a multicast mode.

26. (New) The method of claim 21, further comprising, for any of said plurality of second entities which do not send an acknowledgement, continuing to operate said first entity in a point-to-point mode with such non-acknowledging second entities.

27. (New) The method of claim 21, further comprising selecting, using said first entity, a multicast address which is used for said act of multicasting the request message.

28. (New) The method of claim 21, further comprising, prior to said step of multicasting, determining whether each of said plurality of second endpoints is coupled to said first endpoint via a communication medium.

29. (New) The method of claim 21, further comprising said first entity transmitting a first message comprising capabilities of said first entity to at least a portion of said plurality of second entities.

30. (New) The method of claim 29, further comprising said at least a portion of said second entities transmitting a second message comprising respective capabilities of said at least a por-

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tion of said second entities to said first entity substantially in response to said first entity transmitting said first message.

31. (New) The method of claim 30, wherein said first message from said first entity, and said second messages from said respective ones of said at least a portion of said plurality of second entities, are both transmitted before said act of multicasting.

32. (New) The method of claim 30, wherein said first message from said first entity, and said second messages from said respective ones of said at least a portion of said plurality of second entities, are both transmitted before establishing said point-to-point mode.

33. (New) An apparatus for optimizing a mode of transmission of data between a first entity and a plurality of second entities in a network, said network capable of operating in a point-to-point mode, with each of said second entities connected by a point-to-point communication channel with said first entity, the apparatus comprising:
   a.   a first apparatus configured to multicast a request message to said plurality of
         second entities over a communication channel, said request message being
         used to initiate transition from said point-to-point mode to a multicast mode;
   b.   a second apparatus in data communication with said first apparatus and config-
         ured to receive from certain of said plurality of second entities an acknowl-
         edgment message in response to said request message, said acknowledgement
         message indicating that each of said certain of plurality of second entities was
         able to receive said multicast request message; and
   c.   a third apparatus in data communication with said second apparatus and con-
         figured so that, for each said acknowledgment message received from said cer-
         tain of said plurality of second entities which indicates that said certain of said
         plurality of second entities can receive said multicast request message, said
         point-to-point communication channel between said first entity and said certain
         of said plurality of second entities is deactivated.

34. (New) In a system wherein a first entity and a plurality of second entities in a network are operating in a point-to-point mode, with each of said second entities connected by a point-to-point communication channel with said first entity, an automatic method for changing a mode

of transmission of data between said plurality of second entities and said first entity, the method comprising the following steps:

    a.   said first entity multicasting a request message to said plurality of second entities over a communication channel, said request message being used to initiate transition from said point-to-point mode to a multicast mode;

    b.   said first entity receiving from certain of said plurality of second entities an acknowledgment message in response to said request message, said acknowledgement message indicating that each of said certain of said plurality of entities was able to receive said multicast request message; and

    c.   for each said acknowledgment message received from said certain of said plurality of second entities which indicates that said certain of said plurality of second entities can receive said multicast request message, transitioning communications between said first entity and said certain of said plurality of second entities from said point-to-point mode to said multicast mode.

35. (New) The method of claim 34, wherein said each acknowledgment message includes a response code.

36. (New) The method of claim 35, wherein said response code indicates whether each said certain of said plurality of second endpoints can perform an action requested in the multicast request message.

37. (New) The method of claim 34, wherein said data comprises audio data and video data.

38. (New) The method of claim 34, further comprising operating each of said certain of said plurality of second entities in a multicast mode.

39. (New) The method of claim 34, further comprising, for any of said plurality of second entities which do not send an acknowledgement, continuing to operate said first entity in a point-to-point mode with such non-acknowledging second entities.

40. (New) The method of claim 34, further comprising selecting, using said first entity, a multicast address which is used for said act of multicasting the request message.

41. (New) The method of claim 34, further comprising, prior to said step of multicasting, determining whether each of said plurality of second endpoints is coupled to said first endpoint via a communication medium.

42. (New) The method of claim 34, further comprising said first entity transmitting a first message comprising capabilities of said first entity to at least a portion of said plurality of second entities.

43. (New) The method of claim 42, further comprising said at least a portion of said second entities transmitting a second message comprising respective capabilities of said at least a portion of said second entities to said first entity substantially in response to said first entity transmitting said first message.

44. (New) The method of claim 43, wherein said first message from said first entity, and said second messages from said respective ones of said at least a portion of said plurality of second entities, are both transmitted before said act of multicasting.

45. (New) The method of claim 44, wherein said first message from said first entity, and said second messages from said respective ones of said at least a portion of said plurality of second entities, are both transmitted before establishing said point-to-point mode.

46. (New) An apparatus for automatically changing a mode of transmission of data between a first entity and a plurality of second entities in a network, said network being capable of operating in a point-to-point mode, with each of said second entities connected by a point-to-point communication channel with said first entity, the apparatus comprising:

    a.   a first apparatus configured to multicast a request message to said plurality of second entities over a communication channel, said request message being used to initiate transition from said point-to-point mode to a multicast mode;

    b.   a second apparatus in data communication with said first apparatus and configured to receive from certain of said plurality of second entities an acknowledgment message in response to said request message, said acknowledgement message indicating that each of said certain of said plurality of entities was able to receive said multicast request message; and

c.   a third apparatus in data communication with said second apparatus and con-
figured to, for each said acknowledgment message received from said certain
of said plurality of second entities which indicates that said certain of said plu-
rality of second entities can receive said multicast request message, transition
communications between said first entity and said certain of said plurality of
second entities from said point-to-point mode to said multicast mode.